

Challenges for Farming Systems Research

Learning experience and looking ahead

Ika Darnhofer

10 years ago...



Richard Bawden

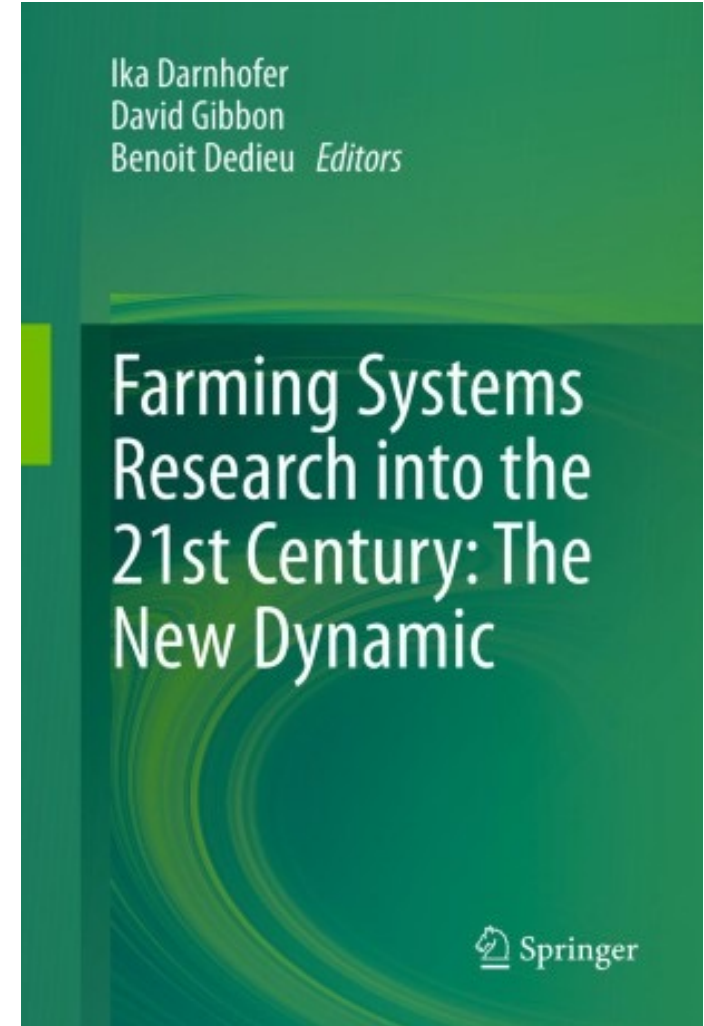
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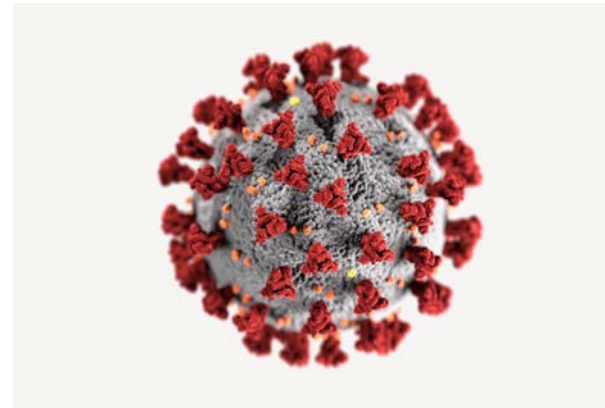
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Farming Systems
Research into the
21st Century: The
New Dynamic

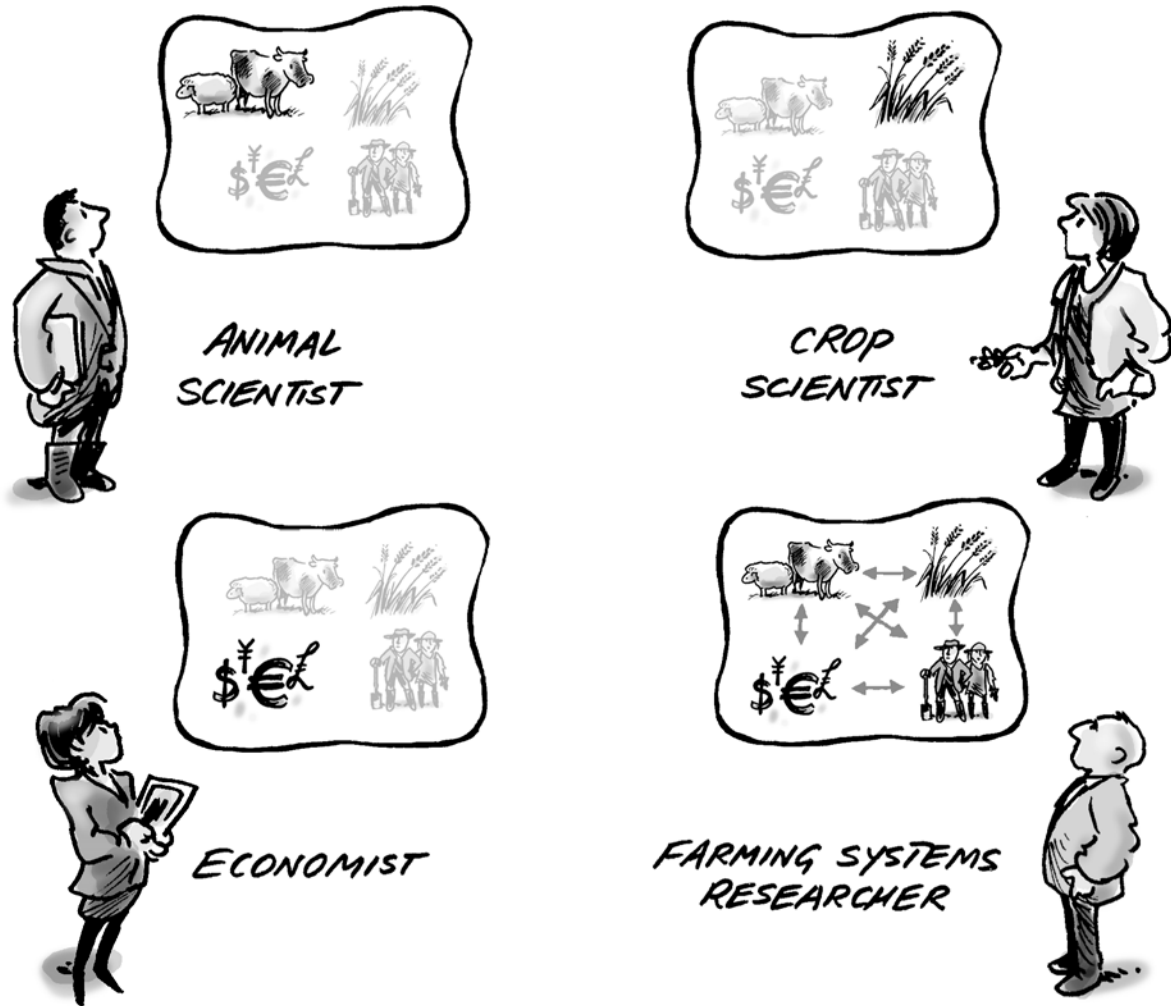
Springer

The 21st century...

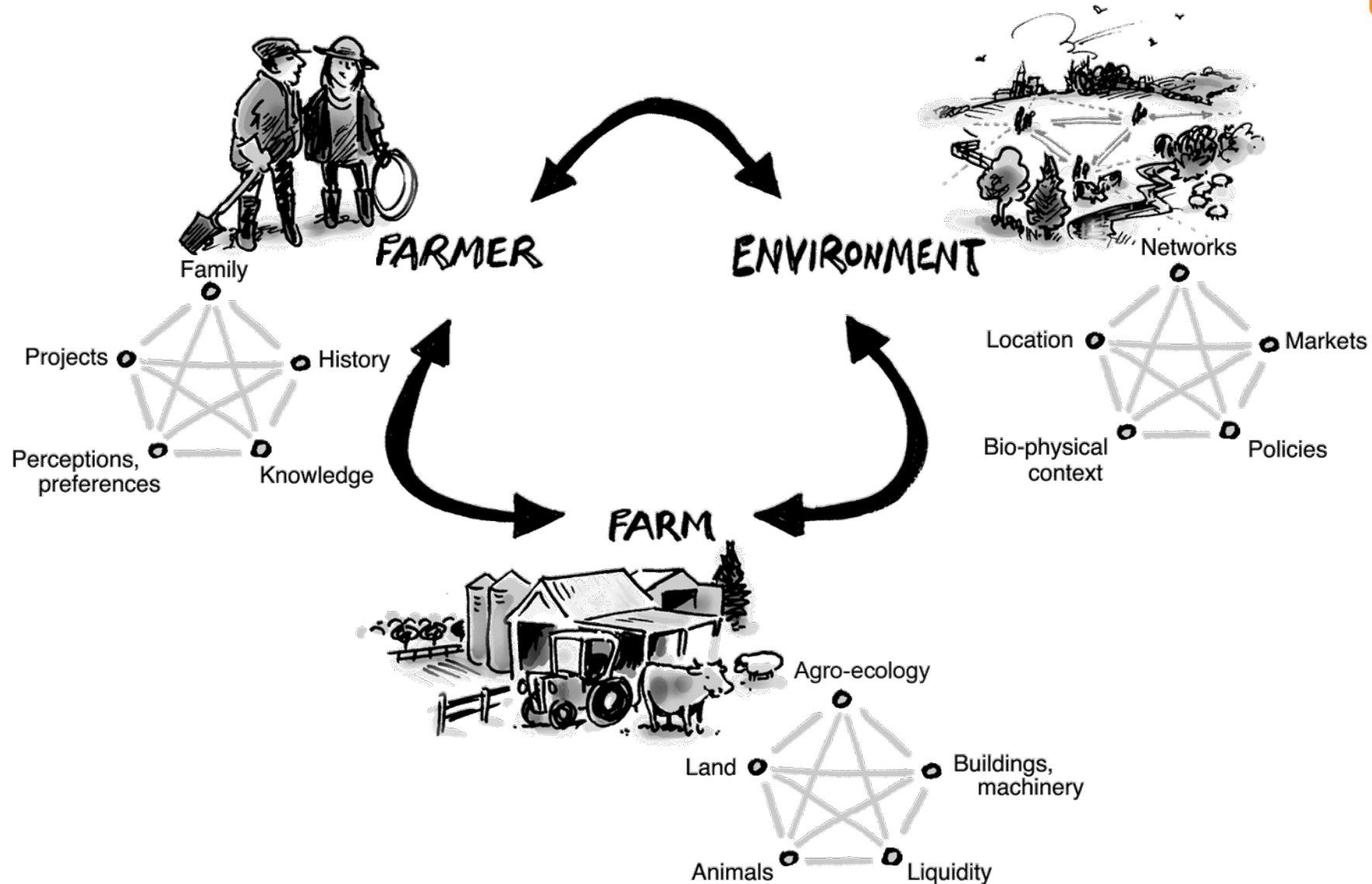
- A lot more dynamic than we expected!
- Many events we never expected!
 - Brexit
 - COVID-19
 - War in Europe



Farming systems research



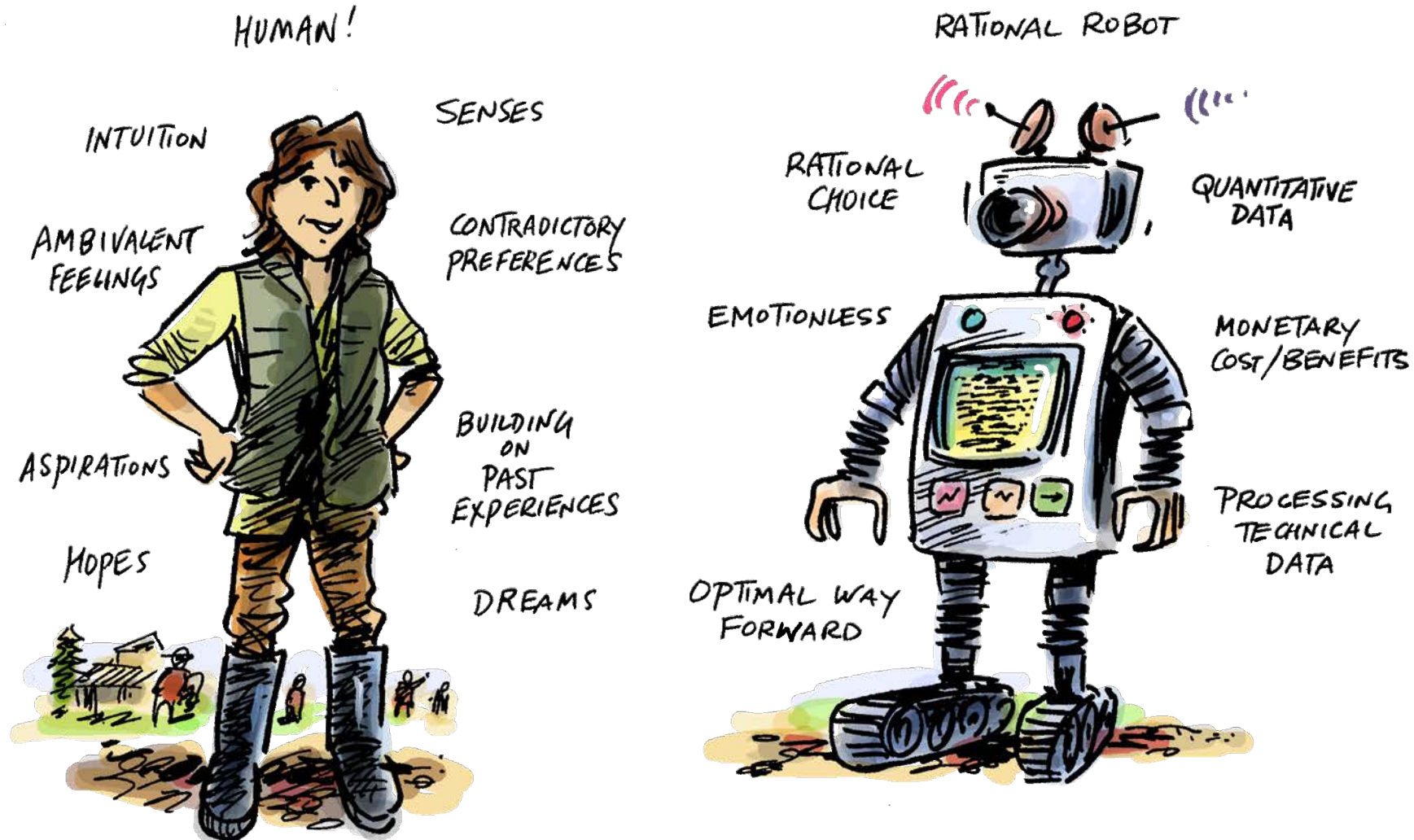
Farming: entities + relations = dynamics



Studying change...



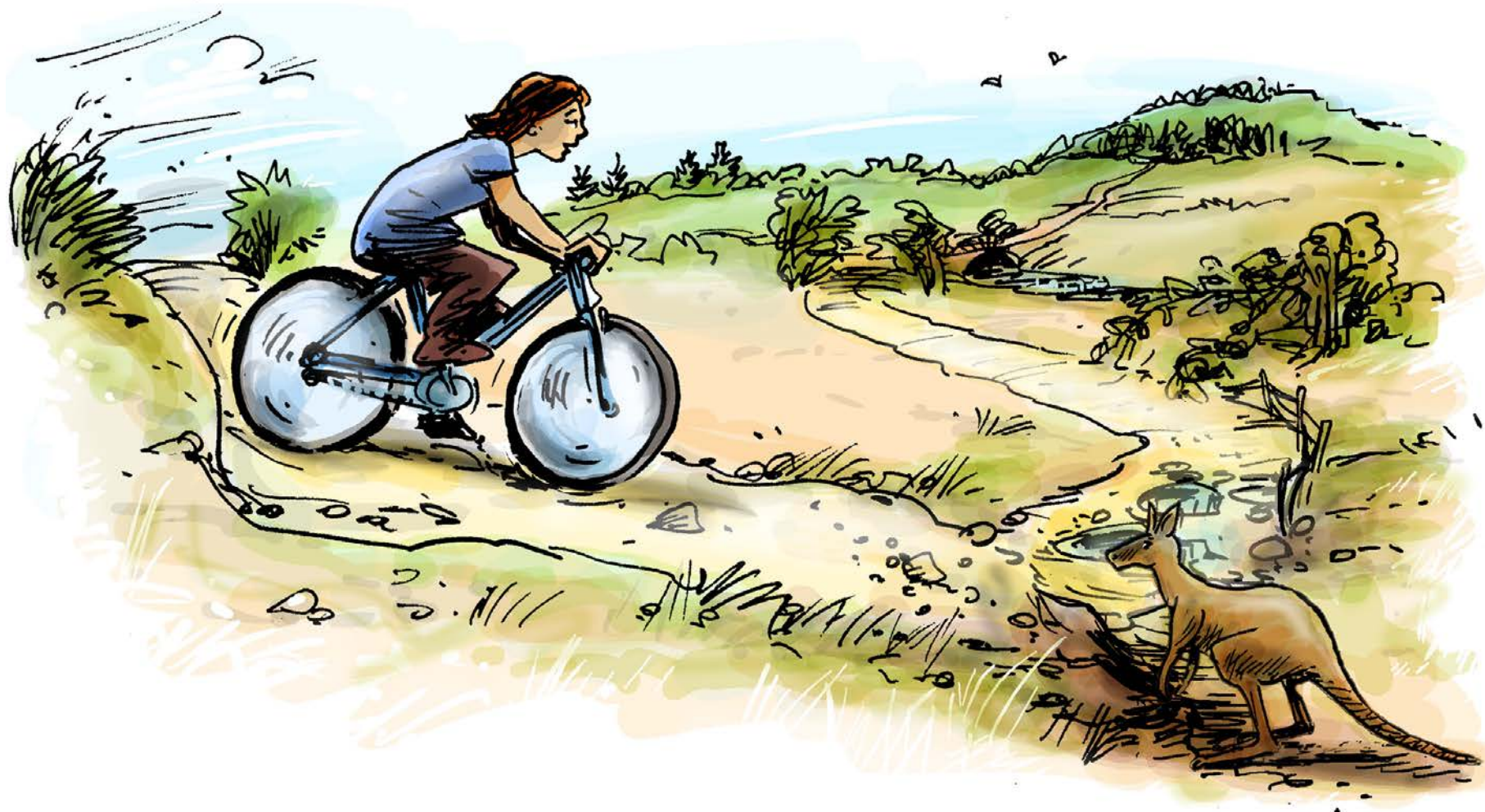
Challenge 1: The human



Challenge 2: The dynamics



Moving is constant adjusting...



Dominant approach to managing change

- Substantialist and static-comparative
- Look for inherent attributes of entities
 - Of individual farms / farmers / farming systems
 - Of agricultural policies, markets
- Analyse and compare two stable 'states'
 - Current vs. desired future state
 - Both are (fairly) clearly defined, stable
- Issue policy recommendations
 - Often have to simplify: recipe-like approach
 - Implies simple causal links: if > then



Process-relational approach

- Focuses on (emerging) relations rather than (fixed) entities
 - Focus on enabling change: it could be otherwise
- Farming as relational process: it deeply intertwines many types of relations:
 - Human relations: ideas, perceptions, preferences, knowledge
 - Social relations: power, economic relations
 - Biological relations: plants, animals (domesticated and wild)
 - Natural relations: ecosystem, weather, climate, soils
 - Material relations: nutrient flows
 - Technological: relations enabled by buildings and machines

Why a process-relational approach?

- Farming less about a specific set of practices
 - Identifying the ‘right’ way to farm
 - Pre-defined and static
- Farming as more about the ability to constantly re-engage in relations
 - Less about things-in-themselves, but about how they are related
 - Characteristics of ‘things’ emerge through the relations
 - Relations are material, social, discursive
 - Less about changing ‘things’ than relations



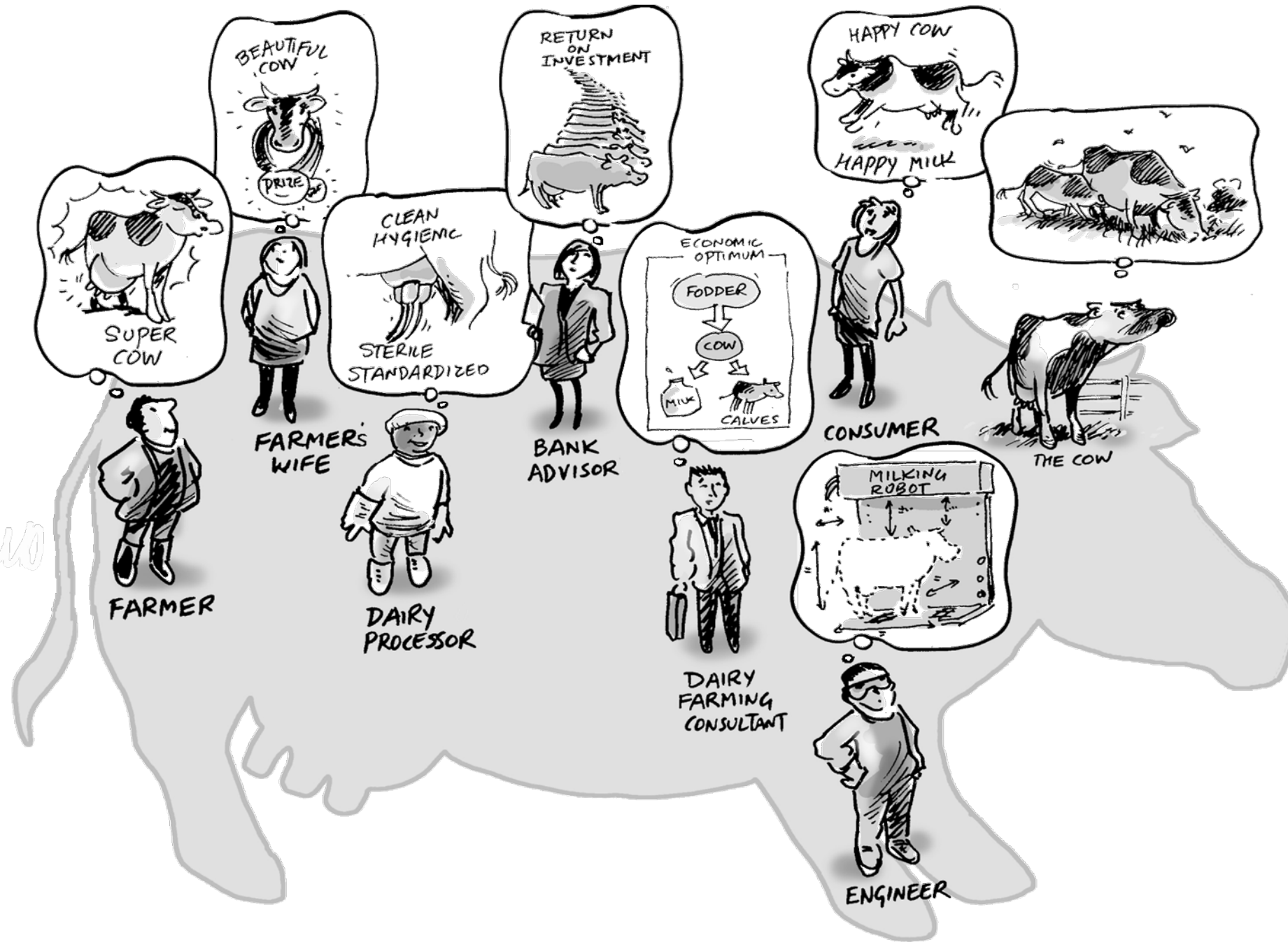
Inherent characteristics vs relations



Distinct set of pieces (e.g. 2 knights)
Each piece has inherent characteristics



Pieces are functionally the same,
Characteristics derived only from relation to
other pieces



How do we conceptualize cows?

Depends on the relations we prioritize!

On-going processes: what do they enable?



- Not about 'things' but about possibilities emerging through relations
 - A hand: 5 fingers
 - What the fingers can do together, in relation to one another
- “We cannot control the wind, but we can adjust our sails”
 - Enabling different relations



To manage = to put in relation



Emergence, unfolding process

Wanderer, there is no path,
The path is made by walking

*Antonio Machado,
Campos de Castilla, XXIX*



A challenge for us researchers...

- **Avoid the trap of substantialism**
 - There are no fixed, solid, permanent substances
 - Relations are not fixed, they require on-going work
- **Avoid the trap of constructivism**
 - It is not 'just in the mind'
 - Laws of physics, biological processes are real
- **Avoid the trap of voluntarism**
 - We cannot just 'will' it to be otherwise, we can only incline propensities
 - Many other agents work on their own projects
- **Avoid the trap of determinism**
 - There is no fixed mechanism that determines outcomes
 - Complexity: many relations involved, specific context

IFSA: an open, on-going process



HEY - THOSE
COWS KNOW WHAT
IT'S ALL ABOUT!



... IN A
MOMENT
THEY'LL DO
'CHANGE'